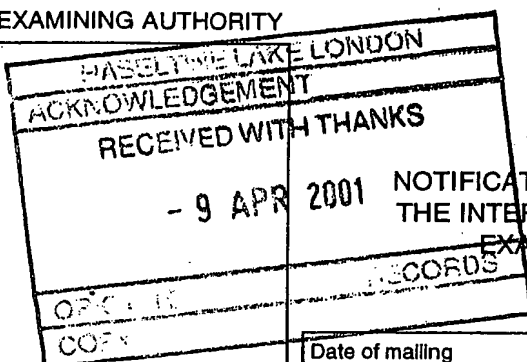


From the
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

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PCT

NOTIFICATION OF TRANSMITTAL OF
THE INTERNATIONAL PRELIMINARY
EXAMINATION REPORT

(PCT Rule 71.1)

Date of mailing
(day/month/year) 09.04.2001

Applicant's or agent's file reference

HL 71375/002 (WS)

IMPORTANT NOTIFICATION

International application No.
PCT/GB00/00673

International filing date (day/month/year)
24/02/2000

Priority date (day/month/year)
04/03/1999

Applicant

THOMAS SWAN & CO. LTD. et al.

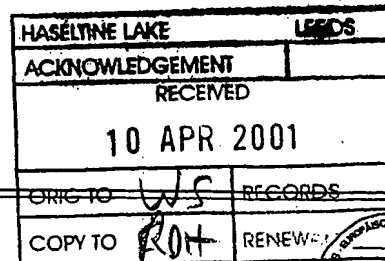
1. The applicant is hereby notified that this International Preliminary Examining Authority transmits herewith the international preliminary examination report and its annexes, if any, established on the international application.
2. A copy of the report and its annexes, if any, is being transmitted to the International Bureau for communication to all the elected Offices.
3. Where required by any of the elected Offices, the International Bureau will prepare an English translation of the report (but not of any annexes) and will transmit such translation to those Offices.

4. REMINDER


The applicant must enter the national phase before each elected Office by performing certain acts (filing translations and paying national fees) within 30 months from the priority date (or later in some Offices) (Article 39(1)) (see also the reminder sent by the International Bureau with Form PCT/IB/301).

Where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary examination report. It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned.

For further details on the applicable time limits and requirements of the elected Offices, see Volume II of the PCT Applicant's Guide.



Name and mailing address of the IPEA/

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PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference HL 71375/002	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)		
International application No. PCT/GB00/00673	International filing date (day/month/year) 24/02/2000	Priority date (day/month/year) 04/03/1999	
International Patent Classification (IPC) or national classification and IPC C07C41/09			
Applicant THOMAS SWAN & CO. LTD. et al.			
<p>1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of ⁵ sheets, including this cover sheet.</p> <p><input checked="" type="checkbox"/> This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).</p> <p>These annexes consist of a total of 5 sheets.</p>			
<p>3. This report contains indications relating to the following items:</p> <ul style="list-style-type: none"> I <input checked="" type="checkbox"/> Basis of the report II <input type="checkbox"/> Priority III <input type="checkbox"/> Non-establishment of opinion with regard to novelty, inventive step and industrial applicability IV <input type="checkbox"/> Lack of unity of invention V <input checked="" type="checkbox"/> Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement VI <input checked="" type="checkbox"/> Certain documents cited VII <input checked="" type="checkbox"/> Certain defects in the international application VIII <input checked="" type="checkbox"/> Certain observations on the international application 			
Date of submission of the demand 20/09/2000	Date of completion of this report 09.04.2001		
Name and mailing address of the international preliminary examining authority:  European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465	Authorized officer Lorenzo, M.J. Telephone No. +49 89 2399 8239		



**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT**

International application No. PCT/GB00/00673

I. Basis of the report

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17):* **Description, pages:**

1-4, 6-15 as originally filed
5, 5a received on 14.03.01 filed with letter of 12.03.01

Claims, No.:

1-16 received on 14.03.01 filed with letter of 12.03.01

Drawings, sheets:

1/1 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
☐ the language of publication of the international application (under Rule 48.3(b)).
☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
☐ filed together with the international application in computer readable form.
☐ furnished subsequently to this Authority in written form.
☐ furnished subsequently to this Authority in computer readable form.
☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- ☐ the description, pages:
☐ the claims, Nos.:

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**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT**

International application No. PCT/GB00/00673

☐ the drawings, sheets:

5. ☒ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)):

(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)

see separate sheet

6. Additional observations, if necessary:

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	
	No: Claims	1-16
Inventive step (IS)	Yes: Claims	
	No: Claims	1-16
Industrial applicability (IA)	Yes: Claims	1-16
	No: Claims	

2. Citations and explanations
see separate sheet

VI. Certain documents cited

1. Certain published documents (Rule 70.10)

and / or

2. Non-written disclosures (Rule 70.9)

see separate sheet

VII. Certain defects in the international application

The following defects in the form or contents of the international application have been noted:
see separate sheet

VIII. Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:
see separate sheet

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Re Item I

Basis of the report

The amendments submitted by the applicant with his letter dated 12.03.01 do not fulfil the requirements of Article 19(2) PCT. The amendments on claim 1 and on page 5 of the description changing "under supercritical or near-critical conditions" by "under supercritical or near-critical conditions for the fluid that is acting as solvent" are considered to go beyond the disclosure as filed (Rule 70.2(c)). Therefore, the establishment of opinion with regard to novelty, inventive step and industrial applicability is based on the application as originally filed.

Re Item V

Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

D1: US-A-5 831 116

The present application relates to a method for producing ether, acetal, ketal or alkene derivatives which comprises reacting an alcohol in the presence of a heterogeneous acid catalyst under supercritical or near critical conditions.

The closest prior art, document D1, discloses a method for partially oxidising alcohols which comprises a) introducing into a reactor unit containing a bed of solid acid catalyst (Lewis acid), an alcohol, oxygen and a supercritical fluid (such as CO₂ or N₂) mobile phase; and b) partially oxidising the alcohol to its corresponding ether, aldehyde, ester or acid, wherein the operating pressure and temperature are greater than the critical point pressure and temperatures of the mixture of alcohol, oxygen and the supercritical fluid.

The disclosure of D1 anticipates thus the subject-matter of claims 1-16 of the present application which are, therefore, not novel according to Article 33(2) PCT. The objection raised in the previous communication against the subject-matter of the application for lack of novelty is, despite the arguments brought forward in the Applicant's letter of reply, maintained.

Re Item VI

Certain documents cited

Although the document J. Am. Chem. Soc. published on 11.06.99 is not considered to be part of the prior art in the sense of Rule 64.1 PCT for the purposes of Articles 33(2) and (3) PCT, this document (see abstract and tables 2-6) would anticipate the subject-matter of the claims of the present application if the priority date of the latter is not valid. This document could become very relevant to assess the patentability of the present application when it enters the national/regional phase. No check has been made as to whether the priority of the present application has been validly claimed.

Re Item VII

Certain defects in the international application

1. Contrary to the requirements of Rule 5.1(a)(ii) PCT, the relevant background art disclosed in the document D1 is not mentioned in the description, nor is this document identified therein.
2. The units of pressure "atm" employed in examples 4-8 are not additionally expressed in terms of the units stipulated by Rule 10.1/(a)/and/(b) PCT.

Re Item VIII

Certain observations on the international application

1. Claims 11 and 15 do not meet the requirements of Article 6 PCT in that the matter for which protection is sought is not defined. The claims attempt to define the subject-matter in terms of the result to be achieved. In this instance, such a formulation is not allowable because it appears possible to define the subject-matter in more concrete terms, viz. in terms of how the effect is to be achieved.
2. Features introduced by "preferred" in claim 2 have no limiting effect on the scope of the claim (see PCT Guidelines, C-IV, 4.6). The presence of such non-limiting features is however detrimental to the conciseness of the claim, contrary to Art. 6 PCT.

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